

REMARKS

Claims 31-34 are pending and have not been amended. The claims stand rejected under 35 U.S.C. § 103 as being obvious over Ugon in view of Goss. Claims 31 is the independent claim and is directed to a microcomputer on a semiconductor chip that includes a central processing unit, an electrically erasable and programmable ROM, a write control circuit, a memory storing a second program, such as a write control program, and an input/output unit wherein a first program received from outside of the semiconductor chip is input by controlling the write control circuit to write the first program to the ROM based on the second program. According to the claim, significant amounts of the first program are stored in the electrically erasable and programmable ROM as an operation program of the central processing unit. Further, significant amounts of the first program that are stored in the ROM are written in a write process where the central processing unit controls the write control circuit by executing the second program, such as the write control program that is stored in the memory.

Ugon is relied upon for teaching a microprocessor EPROM 101 having memory sections M1 and M2 in which a program is

stored. Further, Ugon discloses storing an automatic program (PROG) in memory block M1 for performing the functions required for writing to memory 101, and in particular to memory block M2. However, there is no disclosure suggesting that the memory block M2 stores a program, such as an operation program, in which significant amounts of the program are written to the memory block (M2) from outside the semiconductor chip in a manner comparable to that of the present invention. The Examiner recognizes that the disclosure of Ugon is limited because the reference does not disclose that significant amounts of a program, such as an operation program, are written to the memory block (M2) from outside the semiconductor chip in a write process where the CPU controls a write control circuit by executing a write control program. Accordingly, Goss is applied in combination with Ugon.

Goss is relied upon for disclosing a microcomputer with an EPROM that can be reprogrammed by downloading data to the processor. However, the combination of Goss and Ugon does not render the invention set forth in claims 31-34 obvious under 35 U.S.C. § 103(a) for the following reasons.

Claim 31 sets forth a first program as an operation

program that is stored in the EPROM and a central processing unit that performs a writing to the ROM of the first program that is input from outside of the semiconductor chip via the input/output unit by controlling the write control circuit based on the second program. Neither Ugon nor Goss suggests performing the writing of significant amounts of a first program, such as an operation program, from outside of the chip and this aspect of the claimed invention is not obvious merely because Goss discloses the reprogramming of a EEPROM of a microcomputer from outside the chip. The Office Action does not identify any disclosure in Ugon or Goss that provides the suggestion to modify the PROG (subroutine) stored in memory M1 of Ugon to include writing significant amounts of an operation program stored in ROM from outside the chip. Further, neither reference suggests or teaches replacing the memory M1 with RAM, so that the RAM could then receive a copy of the subroutine PROG, as stated in the Office Action. Rather, the suggestions set forth in the Office Action that it would be obvious to one of ordinary skill in the art to make the modifications to Ugon as proposed result from impermissible hindsight reconstruction of the invention from the references. Therefore, the 35 U.S.C. § 103(a) rejection of claims 31-34


Ser. No. 09/240,975

HIT 2 010-1-1

should be withdrawn.

In view of the foregoing amendments and remarks,  
reconsideration and reexamination are respectfully requested.

Respectfully submitted,

  
John R. Mattingly  
Registration No. 30,293  
Attorney for Applicants

MATTINGLY, STANGER & MALUR  
1800 Diagonal Road, Suite 370  
Alexandria, Virginia 22314  
(703) 684-1120  
Date: October 6, 2003

**CERTIFICATE OF MAILING**

I hereby certify that this correspondence is being  
deposited with the United States Postal Service as first  
class mail in an envelope addressed to:  
Commissioner For Patents and Trademarks,  
Alexandria, VA 22313-1450

on October 6, 2003 by 